

CLAIMS

1. A printer controller for supplying dot data to a printhead in a predetermined order, the printhead comprising at least a first printhead module having a plurality of rows of printing nozzles, the printer controller being configured to order and time the supply of the dot data to the first printhead module such that a relative skew between adjacent rows of printing nozzles on the at least one printhead module, in a direction normal to a direction of printing, is at least partially compensated for.
2. A printer controller according to claim 1, wherein the printer controller is configured to at least partially compensate for the relative skew between adjacent rows in each of a plurality of sets of the adjacent rows.
3. A printer controller according to claim 1, wherein the relative skew between each of the plurality of the sets of the adjacent rows is the same.
4. A printer controller according to claim 1, wherein the printer controller is configured to compensate for the skew by introducing a relative delay into the dot data destined for at least one of the rows of printing nozzles.
5. A printer controller according to claim 4, wherein the printhead is configured to print the dots at a predetermined spacing across its width, and wherein the delay introduced by the printer controller equates to an integral multiple of the spacing.
6. A printer controller according to claim 5, wherein the printhead defines a printable region between printing boundaries, and wherein nozzles of at least one of the rows of at least one of the at least one printhead modules are positioned outside the printable region due to the skew between adjacent rows of the nozzles on the at least one printhead module, the printer controller being configured to introduce a relative delay into the dot data supplied to at least one of the rows such that the nozzles outside the printable region do not print.
7. A printer controller according to claim 1, wherein the at least one printhead module includes at least one pair of adjacent rows of the nozzles such that each row of the pair is configured to print the same ink, the printhead being configured to provide the dot data to the pair of adjacent rows such that the dot data is shifted serially through the first of the rows then through the second of the rows, until the dot data has been supplied to all the nozzles.
8. A printer controller according to claim 7, the printhead being configured to provide the dot data to the pair of adjacent rows such that the dot data is shifted serially through the first of the rows in a first direction then looped back through the second of the rows in a second direction opposite the first, until the dot data has been supplied to all the nozzles.

9. A printer controller according to claim 7, wherein the printhead is configured to print a series of printhead-width rows of the dots, and wherein the first and second rows are configured to print odd and even dots, respectively, of the printhead-width rows, the printhead controller being configured to supply the one or more first rows with odd dot data and the one or more second rows with even dot data.
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10. A printer controller according to claim 7, including a plurality of the pairs of rows, the printer controller being configured to supply the dot data such that any relative skew between the first and second rows of each pair of rows, in a direction normal to a direction of printing, is at least partially compensated for.
- 10 11. A printer controller according to claim 1, wherein each printhead module is configured to print a plurality of independent inks, and wherein the nozzles in each row are configured to print in one of the inks, the printhead controller being configured to supply each of the inks to at least one row of at least one of the printhead modules.
- 15 12. A printer controller according to claim 1, wherein the printhead is a pagewidth printhead.
13. A printer controller according to claim 1, wherein the printhead comprises a plurality of the printhead modules.
- 20 14. A printer controller according to claim 13, wherein at least some of the printhead modules are of mutually unequal length, the printer controller being configured to order and time the supply of the dot data to the compensate for the unequal length.
15. A printer controller according to claim 13, configured to at least partially compensate for any relative skew between adjacent rows of the nozzles on adjacent ones of the printhead modules.
- 25 16. A printer controller according to claim 1, being selectively configurable to compensate at least partially for a plurality of potential relative skews.
- 30 17. A printer controller according to claim 1, being configured to compensate at least partly for a fixed amount of the skew.
18. A printer engine comprising the printer engine controller and the printhead according to claim 5, wherein the nozzles of the printhead are disposed in a printable region between printing boundaries of the printhead, and the printhead includes at least one logical nozzle located outside the printable zone that can accept data but is not capable of printing, the logical nozzles being arranged to introduce a relative delay into the dot data supplied to at least one of the rows, such that dot data is supplied to the correct nozzles for printing.
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